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June 6, 2013

VIA HAND DELIVERY

The Honorable Jocelyn G. Boyd
Chief Clerk/Administrator
Public Service Commission of South Carolina
Post Office Box 11649
Columbia, South Carolina 29211

RE: Application of Utilities Services of South Carolina, Inc. for adjustment of rates and charges and modifications to certain terms and conditions for the provision of water and sewer service. Docket No.: 2007-286-WS

Dear Ms. Boyd:

This follows up on my letter to you of June 4, 2013, forwarding the results of the calendar year 2011 water audit conducted by Utilities Services of South Carolina, Inc. ("USSC") on the systems identified in the Order No. 2013-77 in the above-referenced docket.

Enclosed please find a table setting forth the results of the calendar year 2012 audit of these systems along with copies of the "reporting worksheet" for each such system generated by the American Waterworks Association ("AWWA") program referenced in my earlier letter. In view of the fact that portions of the reporting worksheets have shading which may hinder the legibility of these documents, I am also enclosing a flash drive containing all of the reporting worksheets. An electronic version of the documents contained on the flash drive is also being previously provided to ORS.

By copy of this letter, I am serving a copy of these documents (and a duplicate flash drive) upon the only other party of record, the Office of Regulatory Staff, and enclose a Certificate of Service to that effect.

RECEIVED

2013 JUN -6 PM 2:59

SC PUBLIC SERVICE COMMISSION

AREA CODE 803
TELEPHONE 252-3300
TELECOPIER 256-8062

SC PUBLIC SERVICE COMMISSION
2013 JUN -6 PM 1:30

RECEIVED

Call

The Honorable Jocelyn G. Boyd

June 6, 2013

Page 2

If you have any questions, or if you need any additional information, please do not hesitate to contact me. With best regards, I am

Sincerely,

WILLOUGHBY & HOEFER, P.A.



John M.S. Hoefer

JMSH/sw

Enclosures

cc: Nanette S. Edwards, Esquire
Jeffrey Nelson, Esquire
(w/out enclosure)

BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA
DOCKET NO. 2007-286-WS

RECEIVED

2013 JUN -6 PM 4:31

SC PUBLIC SERVICE
COMMISSION

IN RE:

Application of Utilities Services of
South Carolina, Inc. for adjustment of
rates and charges and modifications to
certain terms and conditions for the
provision of water and sewer service.

CERTIFICATE OF SERVICE

This is to certify that I have caused to be served this day one (1) copy of Utilities Services of South Carolina, Inc.'s **June 6, 2013 Letter** via hand delivery to the following address:

Nanette S. Edwards, Esquire
Office of Regulatory Staff
1401 Main Street, Suite 900
Columbia, South Carolina 29201


Sheila Wright

Columbia, South Carolina
This 6th day of June, 2013.

AWWA WLCC Free Water Audit Software: Reporting Worksheet

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Water Audit Report for: **Bridgewater**

Reporting Year: **2012** **1/2012 - 12/2012**

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades.

All volumes to be entered as: **MILLION GALLONS (US) PER YEAR**

WATER SUPPLIED

<< Enter grading in column 'E'

Volume from own sources:	<input type="text" value="4"/>	<input type="text" value="2.227"/>	Million gallons (US)/yr (MG/Yr)
Master meter error adjustment (enter positive value):	<input type="text" value="1"/>	<input type="text" value="0.050"/>	over-registered MG/Yr
Water imported:	<input type="text" value="4"/>	<input type="text" value="3.479"/>	MG/Yr
Water exported:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr
WATER SUPPLIED:		5.655	MG/Yr

AUTHORIZED CONSUMPTION

Billed metered:	<input type="text" value="8"/>	<input type="text" value="4.934"/>	MG/Yr
Billed unmetered:	<input type="text" value="10"/>	<input type="text" value="0.000"/>	MG/Yr
Unbilled metered:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr
Unbilled Unmetered:	<input type="text" value="5"/>	<input type="text" value="0.071"/>	MG/Yr

Default option selected for Unbilled Unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: MG/Yr

Click here: [?](#)
for help using option buttons below

Pcnt: Value:

Use buttons to select percentage of water supplied OR value

WATER LOSSES (Water Supplied - Authorized Consumption)

MG/Yr

Apparent Losses

Unauthorized consumption: MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	<input type="text" value="4"/>	<input type="text" value="0.101"/>	MG/Yr
Systematic data handling errors:	<input type="text" value="5"/>	<input type="text" value="0.000"/>	MG/Yr

Apparent Losses: MG/Yr

Pcnt: Value:

Choose this option to enter a percentage of billed metered consumption. This is NOT a default value

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: MG/Yr

WATER LOSSES: MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: MG/Yr

= Total Water Loss + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	<input type="text" value="2"/>	<input type="text" value="1.9"/>	miles
Number of active AND inactive service connections:	<input type="text" value="8"/>	<input type="text" value="99"/>	
Connection density:	<input type="text" value="8"/>	<input type="text" value="52"/>	conn./mile main
Average length of customer service line:	<input type="text" value="8"/>	<input type="text" value="0.0"/>	ft (pipe length between curbstop and customer meter or property boundary)
Average operating pressure:	<input type="text" value="1"/>	<input type="text" value="65.0"/>	psi

COST DATA

Total annual cost of operating water system:	<input type="text" value="10"/>	<input type="text" value="\$32,193"/>	\$/Year
Customer retail unit cost (applied to Apparent Losses):	<input type="text" value="10"/>	<input type="text" value="\$9.26"/>	\$/1000 gallons (US)
Variable production cost (applied to Real Losses):	<input type="text" value="10"/>	<input type="text" value="\$3,456.86"/>	\$/Million gallons

PERFORMANCE INDICATORS

Financial Indicators

Non-revenue water as percent by volume of Water Supplied:	<input type="text" value="12.7%"/>
Non-revenue water as percent by cost of operating system:	<input type="text" value="9.8%"/>
Annual cost of Apparent Losses:	<input type="text" value="\$1,064"/>
Annual cost of Real Losses:	<input type="text" value="\$1,851"/>

Operational Efficiency Indicators

Apparent Losses per service connection per day:	<input type="text" value="3.18"/>	gallons/connection/day
Real Losses per service connection per day*:	<input type="text" value="14.82"/>	gallons/connection/day
Real Losses per length of main per day*:	<input type="text" value="N/A"/>	
Real Losses per service connection per day per psi pressure:	<input type="text" value="0.23"/>	gallons/connection/day/psi

Unavoidable Annual Real Losses (UARL):

*** UARL cannot be calculated as either average pressure, number of connections or length of mains is too small: SEE UARL DEFINITION ***

From Above, Real Losses - Current Annual Real Losses (CARL):

Infrastructure Leakage Index (ILI) (CARL/UARL):

* only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 56 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

- 1: Water imported
- 2: Master meter error adjustment
- 3: Volume from own sources

For more information, click here to see the Grading Matrix worksheet

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Water Audit Report for: **Brown Neal**

Reporting Year: **2012** | **1/2012 - 12/2012**

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades.

All volumes to be entered as: **MILLION GALLONS (US) PER YEAR**

WATER SUPPLIED

<< Enter grading in column 'E'

Volume from own sources:	<input type="text" value="4"/>	<input type="text" value="0.823"/>	Million gallons (US)/yr (MG/Yr)
Master meter error adjustment (enter positive value):	<input type="text" value="1"/>	<input type="text" value="0.000"/>	over-registered MG/Yr
Water imported:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr
Water exported:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr
WATER SUPPLIED:		0.823	MG/Yr

AUTHORIZED CONSUMPTION

Billed metered:	<input type="text" value="8"/>	<input type="text" value="0.698"/>	MG/Yr
Billed unmetered:	<input type="text" value="10"/>	<input type="text" value="0.000"/>	MG/Yr
Unbilled metered:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr
Unbilled unmetered:	<input type="text" value="n/a"/>	<input type="text" value="0.010"/>	MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: MG/Yr

Click here: for help using option buttons below

Pcnt: Value:

Use buttons to select percentage of water supplied OR value

WATER LOSSES (Water Supplied - Authorized Consumption)

MG/Yr

Apparent Losses

Unauthorized consumption: MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies: MG/Yr

Systematic data handling errors: MG/Yr

Apparent Losses: MG/Yr

Pcnt: Value:

Choose this option to enter a percentage of billed metered consumption. This is NOT a default value

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: MG/Yr

WATER LOSSES: MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: MG/Yr

= Total Water Loss + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	<input type="text" value="2"/>	<input type="text" value="0.5"/>	miles
Number of active AND inactive service connections:	<input type="text" value="8"/>	<input type="text" value="20"/>	
Connection density:	<input type="text" value="n/a"/>	<input type="text" value="40"/>	conn./mile main
Average length of customer service line:	<input type="text" value="8"/>	<input type="text" value="0.0"/>	ft (pipe length between curbtop and customer meter or property boundary)
Average operating pressure:	<input type="text" value="1"/>	<input type="text" value="45.0"/>	psi

COST DATA

Total annual cost of operating water system:	<input type="text" value="10"/>	<input type="text" value="\$3,818"/>	\$/Year
Customer retail unit cost (applied to Apparent Losses):	<input type="text" value="10"/>	<input type="text" value="\$9.02"/>	\$/1000 gallons (US)
Variable production cost (applied to Real Losses):	<input type="text" value="10"/>	<input type="text" value="\$884.08"/>	\$/Million gallons

PERFORMANCE INDICATORS

Financial Indicators

Non-revenue water as percent by volume of Water Supplied:	<input type="text" value="15.2"/>
Non-revenue water as percent by cost of operating system:	<input type="text" value="6.4"/>
Annual cost of Apparent Losses:	<input type="text" value="\$148"/>
Annual cost of Real Losses:	<input type="text" value="\$87"/>

Operational Efficiency Indicators

Apparent Losses per service connection per day:	<input type="text" value="2.25"/>	gallons/connection/day
Real Losses per service connection per day*:	<input type="text" value="13.47"/>	gallons/connection/day
Real Losses per length of main per day*:	<input type="text" value="N/A"/>	
Real Losses per service connection per day per psi pressure:	<input type="text" value="0.30"/>	gallons/connection/day/psi
Unavoidable Annual Real Losses (UARL):	<input type="text" value="Not Valid"/>	

*** UARL cannot be calculated as either average pressure, number of connections or length of mains is too small: SEE UARL DEFINITION ***

From Above, Real Losses = Current Annual Real Losses (CARL):

Infrastructure Leakage Index (ILI) [CARL/UARL]:

* only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 63 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources

2: Customer metering inaccuracies

3: Unauthorized consumption

For more information, click here to see the Grading Matrix worksheet

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Water Audit Report for: **Brownsboro**

Reporting Year: **2012** **1/2012 - 12/2012**

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: **MILLION GALLONS (US) PER YEAR**

WATER SUPPLIED

<< Enter grading in column 'E'

Volume from own sources:	4	4.245	Million gallons (US)/yr (MG/Yr)
Master meter error adjustment (enter positive value):	1	0.000	over-registered MG/Yr
Water imported:	n/a	0.000	MG/Yr
Water exported:	n/a	0.000	MG/Yr
WATER SUPPLIED:		4.245	MG/Yr

AUTHORIZED CONSUMPTION

Billed metered:	8	3.385	MG/Yr
Billed unmetered:	10	0.000	MG/Yr
Unbilled metered:	n/a	0.000	MG/Yr
Unbilled unmetered:	5	0.053	MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: 3.438 MG/Yr

Click here: [?](#) for help using option buttons below

Pcnt: 1.25% Value:

Use buttons to select percentage of water supplied OR Value

WATER LOSSES (Water Supplied - Authorized Consumption)

0.807 MG/Yr

Apparent Losses

Unauthorized consumption: 0.011 MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	4	0.069	MG/Yr
Systematic data handling errors:	5	0.000	MG/Yr

Apparent Losses: 0.080

Pcnt: 0.25% Value:

2.00% Value:

Choose this option to enter a percentage of billed metered consumption. This is NOT a default value

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 0.727 MG/Yr

WATER LOSSES: 0.807 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 0.860 MG/Yr

= Total Water Loss + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	2	2.2	miles
Number of active AND inactive service connections:	8	87	
Connection density:	8	40	conn./mile main
Average length of customer service line:	8	0.0	ft (pipe length between curbstop and customer meter or property boundary)
Average operating pressure:	1	70.0	psi

COST DATA

Total annual cost of operating water system:	10	\$11,474	\$/Year
Customer retail unit cost (applied to Apparent Losses):	10	\$10.06	\$/1000 gallons (US)
Variable production cost (applied to Real Losses):	10	\$220.29	\$/Million gallons

PERFORMANCE INDICATORS

Financial Indicators

Non-revenue water as percent by volume of Water Supplied:	20.3%
Non-revenue water as percent by cost of operating system:	8.5%
Annual cost of Apparent Losses:	\$803
Annual cost of Real Losses:	\$160

Operational Efficiency Indicators

Apparent Losses per service connection per day:	2.51	gallons/connection/day
Real Losses per service connection per day*:	22.91	gallons/connection/day
Real Losses per length of main per day*:	N/A	
Real Losses per service connection per day per psi pressure:	0.33	gallons/connection/day/psi

Unavoidable Annual Real Losses (UARL): Not Valid

*** UARL cannot be calculated as either average pressure, number of connections or length of mains is too small: SEE UARL DEFINITION ***

From Above, Real Losses = Current Annual Real Losses (CARL): 0.73

Infrastructure Leakage Index (ILI) (CARL/UARL):

* only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 63 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

- 1: Volume from own sources
- 2: Customer metering inaccuracies
- 3: Unauthorized consumption

For more information, click here to see the Grading Matrix worksheet

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Water Audit Report for: **Charwood**

Reporting Year: **2012** **1/2012 - 12/2012**

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: **MILLION GALLONS (US) PER YEAR**

WATER SUPPLIED

<< Enter grading in column 'E'

Volume from own sources: Million gallons (US)/yr (MG/Yr)
 Master meter error adjustment (enter positive value): over-registered MG/Yr
 Water imported: MG/Yr
 Water exported: MG/Yr
WATER SUPPLIED: MG/Yr

AUTHORIZED CONSUMPTION

Billed metered: MG/Yr
 Billed unmetered: MG/Yr
 Unbilled metered: MG/Yr
 Unbilled unmetered: MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: MG/Yr

Click here: [for help using option buttons below](#)

Pcnt: Value:

Use buttons to select percentage of water supplied OR value

WATER LOSSES (Water Supplied - Authorized Consumption)

MG/Yr

Apparent Losses

Unauthorized consumption: MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies: MG/Yr
 Systematic data handling errors: MG/Yr

Apparent Losses: MG/Yr

Pcnt: Value:

2.00%

Choose this option to enter a percentage of billed metered consumption. This is NOT a default value

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: MG/Yr

WATER LOSSES: MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: MG/Yr

= Total Water Loss + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains: miles
 Number of active AND inactive service connections:
 Connection density: conn./mile main
 Average length of customer service line: ft (pipe length between curbside and customer meter or property boundary)
 Average operating pressure: psi

COST DATA

Total annual cost of operating water system: \$/Year
 Customer retail unit cost (applied to Apparent Losses): \$/1000 gallons (US)
 Variable production cost (applied to Real Losses): \$/Million gallons

PERFORMANCE INDICATORS

Financial Indicators

Non-revenue water as percent by volume of Water Supplied:
 Non-revenue water as percent by cost of operating system:
 Annual cost of Apparent Losses:
 Annual cost of Real Losses:

Operational Efficiency Indicators

Apparent Losses per service connection per day: gallons/connection/day
 Real Losses per service connection per day*: gallons/connection/day
 Real Losses per length of main per day*:
 Real Losses per service connection per day per psi pressure: gallons/connection/day/psi

Unavoidable Annual Real Losses (UARL):

*** UARL cannot be calculated as either average pressure, number of connections or length of mains is too small: SEE UARL DEFINITION ***

From Above, Real Losses = Current Annual Real Losses (CARL):

Infrastructure Leakage Index (ILI) [CARL/UARL]:

* only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 64 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources

2: Customer metering inaccuracies

3: Unauthorized consumption

[For more information, click here to see the Grading Matrix worksheet](#)

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Water Audit Report for: **Clearview**

Reporting Year: **2012** 1/2012 - 12/2012

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: **MILLION GALLONS (US) PER YEAR**

WATER SUPPLIED

<< Enter grading in column 'E'

Volume from own sources: n/a 0.000 Million gallons (US)/yr (MG/Yr)
 Master meter error adjustment (enter positive value): 1 0.000 over-registered MG/Yr
 Water imported: 4 2.848 MG/Yr
 Water exported: n/a 0.000 MG/Yr
WATER SUPPLIED: 2.848 MG/Yr

AUTHORIZED CONSUMPTION

Billed metered: 8 1.159 MG/Yr
 Billed unmetered: 10 0.000 MG/Yr
 Unbilled metered: n/a 0.000 MG/Yr
 Unbilled unmetered: 9 0.036 MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: 3.185 MG/Yr

Check input values; WATER SUPPLIED should be greater than AUTHORIZED CONSUMPTION

WATER LOSSES (Water Supplied - Authorized Consumption)

-0.335 MG/Yr

Apparent Losses

Unauthorized consumption: 9 0.007 MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies: 4 0.064 MG/Yr
 Systematic data handling errors: 5 0.000 MG/Yr

Apparent Losses: 0.071 MG/Yr

Check input values; APPARENT LOSSES should be less than WATER LOSSES

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: -0.406 MG/Yr

WATER LOSSES: -0.335 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: -0.299 MG/Yr

= Total Water Loss + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains: 2 1.4 miles
 Number of active AND inactive service connections: 8 61
 Connection density: 43 conn./mile main
 Average length of customer service line: 8 0.0 ft (pipe length between curbstop and customer meter or property boundary)
 Average operating pressure: 1 50.0 psi

COST DATA

Total annual cost of operating water system: 10 \$9,206 \$/Year
 Customer retail unit cost (applied to Apparent Losses): 10 \$6.69 \$/1000 gallons (US)
 Variable production cost (applied to Real Losses): 10 \$817.18 \$/Million gallons

PERFORMANCE INDICATORS

Financial Indicators

Non-revenue water as percent by volume of Water Supplied: -10.5%
 Non-revenue water as percent by cost of operating system: 1.9%
 Annual cost of Apparent Losses: \$478
 Annual cost of Real Losses: -\$332

Operational Efficiency Indicators

Apparent Losses per service connection per day: 3.21 gallons/connection/day
 Real Losses per service connection per day*: -18.25 gallons/connection/day
 Real Losses per length of main per day*: N/A
 Real Losses per service connection per day per psi pressure: -0.37 gallons/connection/day/psi
 Unavoidable Annual Real Losses (UARL): Not Valid

*** UARL cannot be calculated as either average pressure, number of connections or length of mains is too small: SEE UARL DEFINITION ***

From Above, Real Losses = Current Annual Real Losses (CARL): -0.41

Infrastructure Leakage Index (ILI) [CARL/UARL]:

* only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 63 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Water imported

2: Customer metering inaccuracies

3: Unauthorized consumption

[For more information, click here to see the Grading Matrix worksheet](#)

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Water Audit Report for: **Country Oaks**

Reporting Year: **2012** | **1/2012 - 12/2012**

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: **MILLION GALLONS (US) PER YEAR**

WATER SUPPLIED

<< Enter grading in column 'E'

Volume from own sources:	<input type="text" value="4"/>	<input type="text" value="5.921"/>	Million gallons (US)/yr (MG/Yr)
Master meter error adjustment (enter positive value):	<input type="text" value="1"/>	<input type="text" value="0.000"/>	over-registered MG/Yr
Water imported:	<input type="text" value="5"/>	<input type="text" value="2.165"/>	MG/Yr
Water exported:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr
WATER SUPPLIED:		8.086	MG/Yr

AUTHORIZED CONSUMPTION

Billed metered:	<input type="text" value="8"/>	<input type="text" value="7.241"/>	MG/Yr
Billed unmetered:	<input type="text" value="10"/>	<input type="text" value="0.000"/>	MG/Yr
Unbilled metered:	<input type="text" value="9"/>	<input type="text" value="0.088"/>	MG/Yr
Unbilled unmetered:	<input type="text" value="5"/>	<input type="text" value="0.101"/>	MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: **7.430** MG/Yr

Click here: [?](#) for help using option buttons below

Pcnt: Value:

Use buttons to select percentage of water supplied OR value

WATER LOSSES (Water Supplied - Authorized Consumption)

0.656 MG/Yr

Apparent Losses

Unauthorized consumption: MG/Yr

Default option selected for Unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies: MG/Yr
Systematic data handling errors: MG/Yr

Apparent Losses: **0.170**

Pcnt: Value:

Choose this option to enter a percentage of billed metered consumption. This is NOT a default value

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: MG/Yr

WATER LOSSES: **0.656** MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: MG/Yr

= Total Water Loss + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	<input type="text" value="2"/>	<input type="text" value="1.0"/>	miles
Number of active AND inactive service connections:	<input type="text" value="8"/>	<input type="text" value="139"/>	
Connection density:	<input type="text" value="8"/>	<input type="text" value="139"/>	conn./mile main
Average length of customer service line:	<input type="text" value="8"/>	<input type="text" value="0.0"/>	ft (pipe length between curbstop and customer meter or property boundary)
Average operating pressure:	<input type="text" value="1"/>	<input type="text" value="55.0"/>	psi

COST DATA

Total annual cost of operating water system:	<input type="text" value="10"/>	<input type="text" value="\$23,194"/>	\$/Year
Customer retail unit cost (applied to Apparent Losses):	<input type="text" value="10"/>	<input type="text" value="\$9.02"/>	\$/1000 gallons (US)
Variable production cost (applied to Real Losses):	<input type="text" value="10"/>	<input type="text" value="\$485.40"/>	\$/Million gallons

PERFORMANCE INDICATORS

Financial Indicators

Non-revenue water as percent by volume of Water Supplied:	<input type="text" value="10.4%"/>
Non-revenue water as percent by cost of operating system:	<input type="text" value="8.0%"/>
Annual cost of Apparent Losses:	<input type="text" value="\$1,532"/>
Annual cost of Real Losses:	<input type="text" value="\$236"/>

Operational Efficiency Indicators

Apparent Losses per service connection per day:	<input type="text" value="3.35"/>	gallons/connection/day
Real Losses per service connection per day*:	<input type="text" value="9.58"/>	gallons/connection/day
Real Losses per length of main per day*:	<input type="text" value="N/A"/>	
Real Losses per service connection per day per psi pressure:	<input type="text" value="0.17"/>	gallons/connection/day/psi

Unavoidable Annual Real Losses (UARL):

*** UARL cannot be calculated as either average pressure, number of connections or length of mains is too small: SEE UARL DEFINITION ***

From Above, Real Losses - Current Annual Real Losses (CARL):

Infrastructure Leakage Index (ILI) [CARL/UARL]:

* only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 64 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

- 1: Volume from own sources
- 2: Water imported
- 3: Customer metering inaccuracies

For more information, click here to see the Grading Matrix worksheet

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Water Audit Report for: **Edgebrook**

Reporting Year: **2012** 1/2012 - 12/2012

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: **MILLION GALLONS (US) PER YEAR**

WATER SUPPLIED

<< Enter grading in column 'E'

Volume from own sources:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	Million gallons (US)/yr (MG/Yr)
Master meter error adjustment (enter positive value):	<input type="text" value="1"/>	<input type="text" value="0.000"/>	over-registered MG/Yr
Water imported:	<input type="text" value="4"/>	<input type="text" value="0.648"/>	MG/Yr
Water exported:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr
WATER SUPPLIED:		0.648	MG/Yr

AUTHORIZED CONSUMPTION

Billed metered:	<input type="text" value="8"/>	<input type="text" value="0.761"/>	MG/Yr
Billed unmetered:	<input type="text" value="10"/>	<input type="text" value="0.000"/>	MG/Yr
Unbilled metered:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr
Unbilled unmetered:	<input type="text" value="n/a"/>	<input type="text" value="0.008"/>	MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: MG/Yr

Check input values: WATER SUPPLIED should be greater than AUTHORIZED CONSUMPTION

WATER LOSSES (Water Supplied - Authorized Consumption)

-0.121 MG/Yr

Apparent Losses

Unauthorized consumption:	<input type="text" value="n/a"/>	<input type="text" value="0.002"/>	MG/Yr
Customer metering inaccuracies:	<input type="text" value="4"/>	<input type="text" value="0.016"/>	MG/Yr
Systematic data handling errors:	<input type="text" value="5"/>	<input type="text" value="0.000"/>	MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Apparent Losses: MG/Yr

Check input values: APPARENT LOSSES should be less than WATER LOSSES

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: MG/Yr

WATER LOSSES: MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: MG/Yr

= Total Water Loss + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	<input type="text" value="2"/>	<input type="text" value="0.3"/>	miles
Number of active AND inactive service connections:	<input type="text" value="8"/>	<input type="text" value="19"/>	
Connection density:	<input type="text" value="n/a"/>	<input type="text" value="59"/>	conn./mile main
Average length of customer service line:	<input type="text" value="8"/>	<input type="text" value="0.0"/>	ft (pipe length between curbside and customer meter or property boundary)
Average operating pressure:	<input type="text" value="1"/>	<input type="text" value="40.0"/>	psi

Note: Average pressure this low will not allow for calculation of UARL

COST DATA

Total annual cost of operating water system:	<input type="text" value="10"/>	<input type="text" value="\$2,223"/>	\$/Year
Customer retail unit cost (applied to Apparent Losses):	<input type="text" value="10"/>	<input type="text" value="\$7.78"/>	\$/1000 gallons (US)
Variable production cost (applied to Real Losses):	<input type="text" value="10"/>	<input type="text" value="\$188.37"/>	\$/Million gallons

PERFORMANCE INDICATORS

Financial Indicators

Non-revenue water as percent by volume of Water Supplied:	<input type="text" value="-17.5%"/>
Non-revenue water as percent by cost of operating system:	<input type="text" value="4.9%"/>
Annual cost of Apparent Losses:	<input type="text" value="\$134"/>
Annual cost of Real Losses:	<input type="text" value="-\$26"/>

Operational Efficiency Indicators

Apparent Losses per service connection per day:	<input type="text" value="2.49"/>	gallons/connection/day
Real Losses per service connection per day:	<input type="text" value="-20.00"/>	gallons/connection/day
Real Losses per length of main per day:	<input type="text" value="N/A"/>	
Real Losses per service connection per day per psi pressure:	<input type="text" value="-0.50"/>	gallons/connection/day/psi

Unavoidable Annual Real Losses (UARL):

*** UARL cannot be calculated as either average pressure, number of connections or length of mains is too small: SEE UARL DEFINITION ***

From Above, Real Losses = Current Annual Real Losses (CARL):

Infrastructure Leakage Index (ILI) [CARL/UARL]:

* only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 63 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Water imported

2: Customer metering inaccuracies

3: Unauthorized consumption

[For more information, click here to see the Grading Matrix worksheet](#)

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Water Audit Report for: **Fieldcrest**

Reporting Year: **2012** 1/2012 - 12/2012

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades.

All volumes to be entered as: **MILLION GALLONS (US) PER YEAR**

WATER SUPPLIED

<< Enter grading in column 'E'

Volume from own sources:	<input type="text" value="4"/>	<input type="text" value="1.466"/>	Million gallons (US)/yr (MG/Yr)
Master meter error adjustment (enter positive value):	<input type="text" value="1"/>	<input type="text" value="0.053"/>	over-registered MG/Yr
Water imported:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr
Water exported:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr
WATER SUPPLIED:		1.413	MG/Yr

AUTHORIZED CONSUMPTION

Billed metered:	<input type="text" value="8"/>	<input type="text" value="1.364"/>	MG/Yr
Billed unmetered:	<input type="text" value="10"/>	<input type="text" value="0.000"/>	MG/Yr
Unbilled metered:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr
Unbilled unmetered:	<input type="text" value="5"/>	<input type="text" value="0.018"/>	MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: MG/Yr

Click here: [?](#) for help using option buttons below

Pcnt: Value:

Use buttons to select percentage of water supplied OR value

WATER LOSSES (Water Supplied - Authorized Consumption)

MG/Yr

Apparent Losses

Unauthorized consumption: MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	<input type="text" value="4"/>	<input type="text" value="0.028"/>	MG/Yr
Systematic data handling errors:	<input type="text" value="5"/>	<input type="text" value="0.000"/>	MG/Yr

Apparent Losses: MG/Yr

Pcnt: Value:

Choose this option to enter a percentage of billed metered consumption. This is NOT a default value

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: MG/Yr

WATER LOSSES: MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: MG/Yr

= Total Water Loss + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	<input type="text" value="2"/>	<input type="text" value="0.3"/>	miles
Number of active AND inactive service connections:	<input type="text" value="8"/>	<input type="text" value="28"/>	
Connection density:	<input type="text" value="90"/>	<input type="text" value="90"/>	conn./mile main
Average length of customer service line:	<input type="text" value="8"/>	<input type="text" value="0.0"/>	ft (pipe length between curbstop and customer meter or property boundary)
Average operating pressure:	<input type="text" value="1"/>	<input type="text" value="55.0"/>	psi

COST DATA

Total annual cost of operating water system:	<input type="text" value="10"/>	<input type="text" value="\$7,108"/>	\$/Year
Customer retail unit cost (applied to Apparent Losses):	<input type="text" value="10"/>	<input type="text" value="\$9.35"/>	\$/1000 gallons (US)
Variable production cost (applied to Real Losses):	<input type="text" value="10"/>	<input type="text" value="\$360.39"/>	\$/Million gallons

PERFORMANCE INDICATORS

Financial Indicators

Non-revenue water as percent by volume of Water Supplied:	<input type="text" value="3.5%"/>
Non-revenue water as percent by cost of operating system:	<input type="text" value="4.2%"/>
Annual cost of Apparent Losses:	<input type="text" value="\$294"/>
Annual cost of Real Losses:	<input type="text" value="\$0"/>

Operational Efficiency Indicators

Apparent Losses per service connection per day:	<input type="text" value="3.08"/>	gallons/connection/day
Real Losses per service connection per day*:	<input type="text" value="0.02"/>	gallons/connection/day
Real Losses per length of main per day*:	<input type="text" value="N/A"/>	
Real Losses per service connection per day per psi pressure:	<input type="text" value="0.00"/>	gallons/connection/day/psi

Unavoidable Annual Real Losses (UARL):

*** UARL cannot be calculated as either average pressure, number of connections or length of mains is too small: SEE UARL DEFINITION ***

From Above, Real Losses = Current Annual Real Losses (CARL):

Infrastructure Leakage Index (ILI) (CARL/UARL):

* only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 58 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

- 1: Volume from own sources
- 2: Master meter error adjustment
- 3: Customer metering inaccuracies

For more information, click here to see the Grading Matrix worksheet

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Water Audit Report for: **Hidden Lake**

Reporting Year: **2012** | 1/2012 - 12/2012

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: **MILLION GALLONS (US) PER YEAR**

WATER SUPPLIED

<< Enter grading in column 'E'

Volume from own sources:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	Million gallons (US)/yr (MG/Yr)
Master meter error adjustment (enter positive value):	<input type="text" value="1"/>	<input type="text" value="0.000"/>	over-registered MG/Yr
Water imported:	<input type="text" value="4"/>	<input type="text" value="3.708"/>	MG/Yr
Water exported:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr
WATER SUPPLIED:		3.708	MG/Yr

AUTHORIZED CONSUMPTION

Billed metered:	<input type="text" value="8"/>	<input type="text" value="3.354"/>	MG/Yr
Billed unmetered:	<input type="text" value="10"/>	<input type="text" value="0.000"/>	MG/Yr
Unbilled metered:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr
Unbilled unmetered:	<input type="text" value="n/a"/>	<input type="text" value="0.046"/>	MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: MG/Yr

Click here: [?](#)
for help using option
buttons below

Pcnt: Value:

Use buttons to select
percentage of water supplied
OR
Value

WATER LOSSES (Water Supplied - Authorized Consumption)

0.307 MG/Yr

Apparent Losses

Unauthorized consumption: MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	<input type="text" value="4"/>	<input type="text" value="0.068"/>	MG/Yr
Systematic data handling errors:	<input type="text" value="5"/>	<input type="text" value="0.000"/>	MG/Yr

Apparent Losses: MG/Yr

Pcnt: Value:

Choose this option to
enter a percentage of
billed metered
consumption. This is
NOT a default value

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: MG/Yr

WATER LOSSES: MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: MG/Yr

= Total Water Loss + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	<input type="text" value="2"/>	<input type="text" value="4.1"/>	miles
Number of active AND inactive service connections:	<input type="text" value="8"/>	<input type="text" value="72"/>	
Connection density:		<input type="text" value="17"/>	conn./mile main
Average length of customer service line:	<input type="text" value="8"/>	<input type="text" value="0.0"/>	ft (pipe length between curbstop and customer meter or property boundary)
Average operating pressure:	<input type="text" value="1"/>	<input type="text" value="50.0"/>	psi

COST DATA

Total annual cost of operating water system:	<input type="text" value="10"/>	<input type="text" value="\$11,854"/>	\$/Year
Customer retail unit cost (applied to Apparent Losses):	<input type="text" value="10"/>	<input type="text" value="\$6.95"/>	\$/1000 gallons (US)
Variable production cost (applied to Real Losses):	<input type="text" value="10"/>	<input type="text" value="\$1,231.02"/>	\$/Million gallons

PERFORMANCE INDICATORS

Financial Indicators

Non-revenue water as percent by volume of Water Supplied:	<input type="text" value="9.5%"/>
Non-revenue water as percent by cost of operating system:	<input type="text" value="7.4%"/>
Annual cost of Apparent Losses:	<input type="text" value="\$541"/>
Annual cost of Real Losses:	<input type="text" value="\$282"/>

Operational Efficiency Indicators

Apparent Losses per service connection per day:	<input type="text" value="2.96"/>	gallons/connection/day
Real Losses per service connection per day*:	<input type="text" value="N/A"/>	gallons/connection/day
Real Losses per length of main per day*:	<input type="text" value="152.29"/>	gallons/mile/day
Real Losses per service connection per day per psi pressure:	<input type="text" value=""/>	gallons/connection/day/psi

Unavoidable Annual Real Losses (UARL):

*** UARL cannot be calculated as either average pressure, number of connections or length of mains is too small: SEE UARL DEFINITION ***

From Above, Real Losses = Current Annual Real Losses (CARL):

Infrastructure Leakage Index (ILI) (CARL/UARL):

* only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 63 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

- 1: Water imported
- 2: Customer metering inaccuracies
- 3: Unauthorized consumption

For more information, click here to see the Grading Matrix worksheet

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Water Audit Report for: **Kim Acres**

Reporting Year: **2012** **1/2012 - 12/2012**

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: **MILLION GALLONS (US) PER YEAR**

WATER SUPPLIED

<< Enter grading in column 'E'

Volume from own sources:	<input type="text" value="4"/>	<input type="text" value="2.590"/>	Million gallons (US)/yr (MG/Yr)
Master meter error adjustment (enter positive value):	<input type="text" value="1"/>	<input type="text" value="0.000"/>	over-registered MG/Yr
Water imported:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr
Water exported:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr
WATER SUPPLIED:		2.590	MG/Yr

AUTHORIZED CONSUMPTION

Billed metered:	<input type="text" value="8"/>	<input type="text" value="2.440"/>	MG/Yr
Billed unmetered:	<input type="text" value="10"/>	<input type="text" value="0.000"/>	MG/Yr
Unbilled metered:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr
Unbilled unmetered:	<input type="text" value="1"/>	<input type="text" value="0.032"/>	MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: MG/Yr

Click here: for help using option buttons below

Pcnt: Value:

Use buttons to select percentage of water supplied OR value

WATER LOSSES (Water Supplied - Authorized Consumption)

MG/Yr

Apparent Losses

Unauthorized consumption: MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	<input type="text" value="4"/>	<input type="text" value="0.050"/>	MG/Yr
Systematic data handling errors:	<input type="text" value="5"/>	<input type="text" value="0.000"/>	MG/Yr

Apparent Losses: MG/Yr

Pcnt: Value:

Choose this option to enter a percentage of billed metered consumption. This is NOT a default value

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: MG/Yr

WATER LOSSES: MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: MG/Yr

= Total Water Loss + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	<input type="text" value="2"/>	<input type="text" value="2.0"/>	miles
Number of active AND inactive service connections:	<input type="text" value="8"/>	<input type="text" value="59"/>	
Connection density:	<input type="text" value="30"/>	<input type="text" value="30"/>	conn./mile main
Average length of customer service line:	<input type="text" value="8"/>	<input type="text" value="0.0"/>	ft (pipe length between curbstop and customer meter or property boundary)
Average operating pressure:	<input type="text" value="1"/>	<input type="text" value="50.0"/>	psi

COST DATA

Total annual cost of operating water system:	<input type="text" value="10"/>	<input type="text" value="\$10,025"/>	\$/Year
Customer retail unit cost (applied to Apparent Losses):	<input type="text" value="10"/>	<input type="text" value="\$9.41"/>	\$/1000 gallons (US)
Variable production cost (applied to Real Losses):	<input type="text" value="10"/>	<input type="text" value="\$640.24"/>	\$/Million gallons

PERFORMANCE INDICATORS

Financial Indicators

Non-revenue water as percent by volume of Water Supplied:	<input type="text" value="5.8%"/>
Non-revenue water as percent by cost of operating system:	<input type="text" value="5.9%"/>
Annual cost of Apparent Losses:	<input type="text" value="\$530"/>
Annual cost of Real Losses:	<input type="text" value="\$39"/>

Operational Efficiency Indicators

Apparent Losses per service connection per day:	<input type="text" value="2.62"/>	gallons/connection/day
Real Losses per service connection per day*:	<input type="text" value="N/A"/>	gallons/connection/day
Real Losses per length of main per day*:	<input type="text" value="83.60"/>	gallons/mile/day
Real Losses per service connection per day per psi pressure:	<input type="text" value=""/>	gallons/connection/day/psi

Unavoidable Annual Real Losses (UARL):

*** UARL cannot be calculated as either average pressure, number of connections or length of mains is too small: SEE UARL DEFINITION ***

From Above, Real Losses - Current Annual Real Losses (CARL):

Infrastructure Leakage Index (ILI) (CARL/UARL):

* only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 63 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources

2: Customer metering inaccuracies

3: Unauthorized consumption

For more information, click here to see the Grading Matrix worksheet

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Water Audit Report for: **Leslidedale**

Reporting Year: **2012** 1/2012 - 12/2012

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades.

All volumes to be entered as: **MILLION GALLONS (US) PER YEAR**

WATER SUPPLIED

<< Enter grading in column 'E'

Volume from own sources:	4	1.539	Million gallons (US)/yr (MG/Yr)
Master meter error adjustment (enter positive value):	1	0.000	over-registered MG/Yr
Water imported:	n/a	0.000	MG/Yr
Water exported:	n/a	0.000	MG/Yr
WATER SUPPLIED:		1.539	MG/Yr

AUTHORIZED CONSUMPTION

Billed metered:	8	1.430	MG/Yr
Billed unmetered:	10	0.000	MG/Yr
Unbilled metered:	n/a	0.000	MG/Yr
Unbilled unmetered:	7	0.019	MG/Yr
AUTHORIZED CONSUMPTION:		1.449	MG/Yr

Click here: [?](#)
for help using option
buttons below

Pcnt: **1.25%** Value:

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

Use buttons to select
percentage of water supplied
OR
value

WATER LOSSES (Water Supplied - Authorized Consumption)

0.090 MG/Yr

Apparent Losses

Unauthorized consumption:	7	0.004	MG/Yr
Customer metering inaccuracies:	4	0.029	MG/Yr
Systematic data handling errors:	5	0.000	MG/Yr
Apparent Losses:		0.033	

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Pcnt: **0.25%** Value:

2.00% Value:

Choose this option to
enter a percentage of
billed metered
consumption. This is
NOT a default value

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses:		0.057	MG/Yr
WATER LOSSES:		0.090	MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER:		0.109	MG/Yr
= Total Water Loss + Unbilled Metered + Unbilled Unmetered			

SYSTEM DATA

Length of mains:	2	0.5	miles
Number of active AND inactive service connections:	9	29	
Connection density:		58	conn./mile main
Average length of customer service line:	8	0.0	ft
Average operating pressure:	1	65.0	psi

(pipe length between curbstop and customer meter or property boundary)

COST DATA

Total annual cost of operating water system:	10	\$10,850	\$/Year
Customer retail unit cost (applied to Apparent Losses):	10	\$7.74	\$/1000 gallons (US)
Variable production cost (applied to Real Losses):	10	\$600.94	\$/Million gallons

PERFORMANCE INDICATORS

Financial Indicators

Non-revenue water as percent by volume of Water Supplied:	7.1%
Non-revenue water as percent by cost of operating system:	2.8%
Annual cost of Apparent Losses:	\$256
Annual cost of Real Losses:	\$34

Operational Efficiency Indicators

Apparent Losses per service connection per day:	3.13	gallons/connection/day
Real Losses per service connection per day:	5.39	gallons/connection/day
Real Losses per length of main per day:	N/A	
Real Losses per service connection per day per psi pressure:	0.08	gallons/connection/day/psi
Unavoidable Annual Real Losses (UARL):	Not Valid	
*** UARL cannot be calculated as either average pressure, number of connections or length of mains is too small: SEE UARL DEFINITION ***		
From Above, Real Losses - Current Annual Real Losses (CARL):	0.06	
Infrastructure Leakage Index (ILI) [CARL/UARL]:		

* only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 63 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

- 1: Volume from own sources
- 2: Customer metering inaccuracies
- 3: Unauthorized consumption

For more information, click here to see the Grading Matrix worksheet

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Water Audit Report for: **Leslie Woods**

Reporting Year: **2012** 1/2012 - 12/2012

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades.

All volumes to be entered as: **MILLION GALLONS (US) PER YEAR**

WATER SUPPLIED

<< Enter grading in column 'E'

Volume from own sources: 1.031 Million gallons (US)/yr (MG/Yr)
 Master meter error adjustment (enter positive value): 0.000 over-registered MG/Yr
 Water imported: 0.000 MG/Yr
 Water exported: 0.000 MG/Yr
WATER SUPPLIED: 1.031 MG/Yr

AUTHORIZED CONSUMPTION

Billed metered: 0.936 MG/Yr
 Billed unmetered: 0.000 MG/Yr
 Unbilled metered: 0.000 MG/Yr
 Unbilled unmetered: 0.013 MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: 0.949 MG/Yr

Click here: [?](#)
for help using option buttons below

Pcnt: 1.25% Value:

Use buttons to select percentage of water supplied OR value

WATER LOSSES (Water Supplied - Authorized Consumption)

0.082 MG/Yr

Apparent Losses

Unauthorized consumption: 0.003 MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies: 0.019 MG/Yr
 Systematic data handling errors: 0.000 MG/Yr

Apparent Losses: 0.022

Pcnt: 0.25% Value:

2.00% Value:

Choose this option to enter a percentage of billed metered consumption. This is NOT a default value

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 0.060 MG/Yr

WATER LOSSES: 0.082 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 0.095 MG/Yr

= Total Water Loss + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains: 0.5 miles
 Number of active AND inactive service connections: 16
 Connection density: conn./mile main
 Average length of customer service line: 0.0 ft (pipe length between curbstop and customer meter or property boundary)
 Average operating pressure: 60.0 psi

COST DATA

Total annual cost of operating water system: \$4,077 \$/Year
 Customer retail unit cost (applied to Apparent Losses): \$8.79 \$/1000 gallons (US)
 Variable production cost (applied to Real Losses): \$692.73 \$/Million gallons

PERFORMANCE INDICATORS

Financial Indicators

Non-revenue water as percent by volume of Water Supplied: 9.2%
 Non-revenue water as percent by cost of operating system: 5.9%
 Annual cost of Apparent Losses: \$191
 Annual cost of Real Losses: \$42

Operational Efficiency Indicators

Apparent Losses per service connection per day: 3.73 gallons/connection/day
 Real Losses per service connection per day*: N/A gallons/connection/day
 Real Losses per length of main per day*: 330.05 gallons/mile/day
 Real Losses per service connection per day per psi pressure: gallons/connection/day/psi

Unavoidable Annual Real Losses (UARL): Not Valid

*** UARL cannot be calculated as either average pressure, number of connections or length of mains is too small: SEE UARL DEFINITION ***

From Above, Real Losses - Current Annual Real Losses (CARL): 0.06

Infrastructure Leakage Index (ILI) (CARL/UARL):

* only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 63 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources

2: Customer metering inaccuracies

3: Unauthorized consumption

[For more information, click here to see the Grading Matrix worksheet](#)

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Water Audit Report for: **Murray Lodge**

Reporting Year: **2012** | **1/2012 - 12/2012**

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: **MILLION GALLONS (US) PER YEAR**

WATER SUPPLIED

<< Enter grading in column 'E'

Volume from own sources:	1	3.293	Million gallons (US)/yr (MG/Yr)
Master meter error adjustment (enter positive value):	1	0.000	over-registered MG/Yr
Water imported:	n/a	0.000	MG/Yr
Water exported:	n/a	0.000	MG/Yr
WATER SUPPLIED:		3.293	MG/Yr

AUTHORIZED CONSUMPTION

Billed metered:	8	3.182	MG/Yr
Billed unmetered:	10	0.000	MG/Yr
Unbilled metered:	n/a	0.000	MG/Yr
Unbilled unmetered:	7	0.041	MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: 3.224 MG/Yr

Click here: [for help using option buttons below](#)

Pcnt: 1.25% Value:

Use buttons to select percentage of water supplied OR value

WATER LOSSES (Water Supplied - Authorized Consumption)

0.069 MG/Yr

Apparent Losses

Unauthorized consumption: 0.008 MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	4	0.065	MG/Yr
Systematic data handling errors:	5	0.000	MG/Yr

Apparent Losses: 0.073 MG/Yr

Check input values: APPARENT LOSSES should be less than WATER LOSSES

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: -0.004 MG/Yr

WATER LOSSES: 0.069 MG/Yr

Pcnt: 0.25% Value:

Pcnt: 2.00% Value:

Choose this option to enter a percentage of billed metered consumption. This is NOT a default value

NON-REVENUE WATER

NON-REVENUE WATER: 0.110 MG/Yr

= Total Water Loss + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	4	0.6	miles
Number of active AND inactive service connections:	8	58	
Connection density:		98	conn./mile main
Average length of customer service line:	8	0.0	ft (pipe length between curbstop and customer meter or property boundary)
Average operating pressure:	1	55.0	psi

COST DATA

Total annual cost of operating water system:	10	\$15,396	\$/Year
Customer retail unit cost (applied to Apparent Losses):	10	\$8.89	\$/1000 gallons (US)
Variable production cost (applied to Real Losses):	10	\$573.16	\$/Million gallons

PERFORMANCE INDICATORS

Financial Indicators

Non-revenue water as percent by volume of Water Supplied:	3.4%
Non-revenue water as percent by cost of operating system:	4.4%
Annual cost of Apparent Losses:	\$651
Annual cost of Real Losses:	-\$2

Operational Efficiency Indicators

Apparent Losses per service connection per day:	3.46	gallons/connection/day
Real Losses per service connection per day*:	-0.19	gallons/connection/day
Real Losses per length of main per day*:	N/A	
Real Losses per service connection per day per psi pressure:	0.00	gallons/connection/day/psi

Unavoidable Annual Real Losses (UARL): Not Valid

*** UARL cannot be calculated as either average pressure, number of connections or length of mains is too small: SEE UARL DEFINITION ***

From Above, Real Losses - Current Annual Real Losses (CARL): 0.00

Infrastructure Leakage Index (ILI) (CARL/UARL):

* only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 54 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources

2: Customer metering inaccuracies

3: Unauthorized consumption

For more information, click here to see the Grading Matrix worksheet

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Water Audit Report for: **Nevitt/Leon/Noxmandy**

Reporting Year: **2012** **1/2012 - 12/2012**

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades.

All volumes to be entered as: **MILLION GALLONS (US) PER YEAR**

WATER SUPPLIED

<< Enter grading in column 'E'

Volume from own sources:	<input type="text" value="4"/>	<input type="text" value="0.686"/>	Million gallons (US)/yr (MG/Yr)
Master meter error adjustment (enter positive value):	<input type="text" value="1"/>	<input type="text" value="0.034"/>	over-registered MG/Yr
Water imported:	<input type="text" value="4"/>	<input type="text" value="18.884"/>	MG/Yr
Water exported:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr
WATER SUPPLIED:		19.536	MG/Yr

AUTHORIZED CONSUMPTION

Billed metered:	<input type="text" value="8"/>	<input type="text" value="18.650"/>	MG/Yr
Billed unmetered:	<input type="text" value="10"/>	<input type="text" value="0.000"/>	MG/Yr
Unbilled metered:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr
Unbilled unmetered:	<input type="text" value="5"/>	<input type="text" value="0.244"/>	MG/Yr
AUTHORIZED CONSUMPTION:		18.895	MG/Yr

Click here: [?](#) for help using option buttons below

Pcnt: Value:

Use buttons to select percentage of water supplied OR value

WATER LOSSES (Water Supplied - Authorized Consumption)

0.642 MG/Yr

Apparent Losses

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Unauthorized consumption:	<input type="text" value="5"/>	<input type="text" value="0.049"/>	MG/Yr
Customer metering inaccuracies:	<input type="text" value="4"/>	<input type="text" value="0.381"/>	MG/Yr
Systematic data handling errors:	<input type="text" value="5"/>	<input type="text" value="0.000"/>	MG/Yr

Apparent Losses: **0.430**

Pcnt: Value:

Choose this option to enter a percentage of billed metered consumption. This is NOT a default value

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **0.212** MG/Yr

WATER LOSSES: **0.642** MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: **0.886** MG/Yr

- Total Water Loss + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	<input type="text" value="2"/>	<input type="text" value="8.7"/>	miles
Number of active AND inactive service connections:	<input type="text" value="8"/>	<input type="text" value="366"/>	
Connection density:	<input type="text" value="8"/>	<input type="text" value="42"/>	conn./mile main
Average length of customer service line:	<input type="text" value="8"/>	<input type="text" value="0.0"/>	ft (pipe length between curbstop and customer meter or property boundary)
Average operating pressure:	<input type="text" value="1"/>	<input type="text" value="52.0"/>	psi

COST DATA

Total annual cost of operating water system:	<input type="text" value="10"/>	<input type="text" value="\$124,004"/>	\$/Year
Customer retail unit cost (applied to Apparent Losses):	<input type="text" value="10"/>	<input type="text" value="\$9.08"/>	\$/1000 gallons (US)
Variable production cost (applied to Real Losses):	<input type="text" value="10"/>	<input type="text" value="\$4,326.09"/>	\$/Million gallons

PERFORMANCE INDICATORS

Financial Indicators

Non-revenue water as percent by volume of Water Supplied:	<input type="text" value="4.5"/>
Non-revenue water as percent by cost of operating system:	<input type="text" value="4.7"/>
Annual cost of Apparent Losses:	<input type="text" value="\$3,900"/>
Annual cost of Real Losses:	<input type="text" value="\$918"/>

Operational Efficiency Indicators

Apparent Losses per service connection per day:	<input type="text" value="3.22"/>	gallons/connection/day
Real Losses per service connection per day*:	<input type="text" value="1.59"/>	gallons/connection/day
Real Losses per length of main per day*:	<input type="text" value="N/A"/>	
Real Losses per service connection per day per psi pressure:	<input type="text" value="0.03"/>	gallons/connection/day/psi
Unavoidable Annual Real Losses (UARL):	<input type="text" value="Not Valid"/>	

*** UARL cannot be calculated as either average pressure, number of connections or length of mains is too small: SEE UARL DEFINITION ***

From Above, Real Losses - Current Annual Real Losses (CARL):

[?](#) Infrastructure Leakage Index (ILI) [CARL/UARL]:

* only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 56 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Water imported

2: Master meter error adjustment

3: Volume from own sources

[For more information, click here to see the Grading Matrix worksheet](#)

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Water Audit Report for: **Pepperidge**

Reporting Year: **2012** **1/2012 - 12/2012**

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (1-10) using the drop-down list to the left of the input cell! Hover the mouse over the cell to obtain a description of the grades.

All volumes to be entered as: **MILLION GALLONS (US) PER YEAR**

WATER SUPPLIED

<< Enter grading in column 'E'

Volume from own sources:	<input type="text" value="4"/>	<input type="text" value="3.852"/>	Million gallons (US)/yr (MG/Yr)
Master meter error adjustment (enter positive value):	<input type="text" value="1"/>	<input type="text" value="0.000"/>	over-registered MG/Yr
Water imported:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr
Water exported:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr
WATER SUPPLIED:		3.852	MG/Yr

AUTHORIZED CONSUMPTION

Billed metered:	<input type="text" value="8"/>	<input type="text" value="2.273"/>	MG/Yr
Billed unmetered:	<input type="text" value="10"/>	<input type="text" value="0.000"/>	MG/Yr
Unbilled metered:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr
Unbilled unmetered:	<input type="text" value="n/a"/>	<input type="text" value="0.048"/>	MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: MG/Yr

Click here: [?](#) for help using option buttons below

Pcnt: Value:

Use buttons to select percentage of water supplied OR value

WATER LOSSES (Water Supplied - Authorized Consumption)

MG/Yr

Apparent Losses

Unauthorized consumption: MG/Yr

Default option selected for Unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies: MG/Yr
Systematic data handling errors: MG/Yr

Apparent Losses: MG/Yr

Pcnt: Value:

Choose this option to enter a percentage of billed metered consumption. This is NOT a default value

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: MG/Yr

WATER LOSSES: MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: MG/Yr

= Total Water Loss + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	<input type="text" value="2"/>	<input type="text" value="2.0"/>	miles
Number of active AND inactive service connections:	<input type="text" value="8"/>	<input type="text" value="50"/>	
Connection density:	<input type="text" value="n/a"/>	<input type="text" value="25"/>	conn./mile main
Average length of customer service line:	<input type="text" value="8"/>	<input type="text" value="0.0"/>	ft (pipe length between curbstop and customer meter or property boundary)
Average operating pressure:	<input type="text" value="1"/>	<input type="text" value="55.0"/>	psi

COST DATA

Total annual cost of operating water system:	<input type="text" value="10"/>	<input type="text" value="\$10,088"/>	\$/Year
Customer retail unit cost (applied to Apparent Losses):	<input type="text" value="10"/>	<input type="text" value="\$9.20"/>	\$/1000 gallons (US)
Variable production cost (applied to Real Losses):	<input type="text" value="10"/>	<input type="text" value="\$372.74"/>	\$/Million gallons

PERFORMANCE INDICATORS

Financial Indicators

Non-revenue water as percent by volume of Water Supplied:	<input type="text" value="41.0%"/>
Non-revenue water as percent by cost of operating system:	<input type="text" value="10.7%"/>
Annual cost of Apparent Losses:	<input type="text" value="\$516"/>
Annual cost of Real Losses:	<input type="text" value="\$550"/>

Operational Efficiency Indicators

Apparent Losses per service connection per day:	<input type="text" value="3.07"/>	gallons/connection/day
Real Losses per service connection per day*:	<input type="text" value="N/A"/>	gallons/connection/day
Real Losses per length of main per day*:	<input type="text" value="2,020.77"/>	gallons/mile/day
Real Losses per service connection per day per psi pressure:	<input type="text" value="n/a"/>	gallons/connection/day/psi
Unavoidable Annual Real Losses (UARL):	<input type="text" value="Not Valid"/>	

*** UARL cannot be calculated as either average pressure, number of connections or length of mains is too small: SEE UARL DEFINITION ***

From Above, Real Losses = Current Annual Real Losses (CARL):

Infrastructure Leakage Index (ILI) (CARL/UARL):

* only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 63 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

- 1: Volume from own sources
- 2: Customer metering inaccuracies
- 3: Unauthorized consumption

For more information, click here to see the Grading Matrix worksheet!

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Water Audit Report for: **Surfside**

Reporting Year: **2012** **1/2012 - 12/2012**

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades.

All volumes to be entered as: **MILLION GALLONS (US) PER YEAR**

WATER SUPPLIED

<< Enter grading in column 'E'

Volume from own sources:	3	n/a	0.000	Million gallons (US)/yr (MG/Yr)
Master meter error adjustment (enter positive value):	2	1	0.000	over-registered MG/Yr
Water imported:	2	4	0.932	MG/Yr
Water exported:	2	n/a	0.000	MG/Yr
WATER SUPPLIED:			0.932	MG/Yr

AUTHORIZED CONSUMPTION

Billed metered:	2	8	1.000	MG/Yr
Billed unmetered:	2	10	0.000	MG/Yr
Unbilled metered:	2	n/a	0.000	MG/Yr
Unbilled unmetered:	2		0.012	MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: 2 1.068 MG/Yr

Check input values; WATER SUPPLIED should be greater than AUTHORIZED CONSUMPTION

WATER LOSSES (Water Supplied - Authorized Consumption)

-0.128 MG/Yr

Apparent Losses

Unauthorized consumption: 2 0.002 MG/Yr

Default option selected for Unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	2	4	0.021	MG/Yr
Systematic data handling errors:	2	5	0.000	MG/Yr

Apparent Losses: 2 0.022 MG/Yr

Check input values; APPARENT LOSSES should be less than WATER LOSSES

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 2 -0.152 MG/Yr

WATER LOSSES: -0.128 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 2 -0.117 MG/Yr

- Total Water Loss + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	2	2	0.7	miles
Number of active AND inactive service connections:	2	8	21	
Connection density:	2	8	30	conn./mile main
Average length of customer service line:	2	8	0.0	ft (pipe length between curbstop and customer meter or property boundary)
Average operating pressure:	2	1	60.0	psi

COST DATA

Total annual cost of operating water system:	2	10	\$4,054	\$/Year
Customer retail unit cost (applied to Apparent Losses):	2	10	\$6.09	\$/1000 gallons (US)
Variable production cost (applied to Real Losses):	2	10	\$1,570.56	\$/Million gallons

PERFORMANCE INDICATORS

Financial Indicators

Non-revenue water as percent by volume of Water Supplied:	-12.5%
Non-revenue water as percent by cost of operating system:	-1.9%
Annual cost of Apparent Losses:	\$145
Annual cost of Real Losses:	-\$239

Operational Efficiency Indicators

Apparent Losses per service connection per day:	3.11	gallons/connection/day
Real Losses per service connection per day*:	N/A	gallons/connection/day
Real Losses per length of main per day*:	-595.12	gallons/mile/day
Real Losses per service connection per day per psi pressure:		gallons/connection/day/psi

Unavoidable Annual Real Losses (UARL): Not Valid

*** UARL cannot be calculated as either average pressure, number of connections or length of mains is too small: SEE UARL DEFINITION ***

From Above, Real Losses = Current Annual Real Losses (CARL): -0.15

Infrastructure Leakage Index (ILI) (CARL/UARL):

* only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 63 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Water imported

2: Customer metering inaccuracies

3: Unauthorized consumption

[For more information, click here to see the Grading Matrix worksheet](#)

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Water Audit Report for: **Tanglewood - 401119**

Reporting Year: **2012** | **1/2012 - 12/2012**

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades.

All volumes to be entered as: **MILLION GALLONS (US) PER YEAR**

WATER SUPPLIED

<< Enter grading in column 'E'

Volume from own sources:	<input type="text" value="4"/>	<input type="text" value="0.286"/>	Million gallons (US)/yr (MG/Yr)
Master meter error adjustment (enter positive value):	<input type="text" value="1"/>	<input type="text" value="0.001"/>	under-registered MG/Yr
Water imported:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr
Water exported:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr
WATER SUPPLIED:		0.287	MG/Yr

AUTHORIZED CONSUMPTION

Billed metered:	<input type="text" value="8"/>	<input type="text" value="0.253"/>	MG/Yr
Billed unmetered:	<input type="text" value="10"/>	<input type="text" value="0.000"/>	MG/Yr
Unbilled metered:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr
Unbilled unmetered:	<input type="text" value="n/a"/>	<input type="text" value="0.004"/>	MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: **MG/Yr**

Click here: [?](#)
for help using option buttons below

Pcnt: Value:

Use buttons to select percentage of water supplied OR value

WATER LOSSES (Water Supplied - Authorized Consumption)

MG/Yr

Apparent Losses

Unauthorized consumption: **MG/Yr**

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	<input type="text" value="4"/>	<input type="text" value="0.005"/>	MG/Yr
Systematic data handling errors:	<input type="text" value="5"/>	<input type="text" value="0.000"/>	MG/Yr

Apparent Losses: **MG/Yr**

Pcnt: Value:

MG/Yr

Choose this option to enter a percentage of billed metered consumption. This is NOT a default value

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **MG/Yr**

WATER LOSSES: **MG/Yr**

NON-REVENUE WATER

NON-REVENUE WATER: **MG/Yr**

= Total Water Loss + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	<input type="text" value="2"/>	<input type="text" value="1.0"/>	miles
Number of active AND inactive service connections:	<input type="text" value="8"/>	<input type="text" value="10"/>	
Connection density:	<input type="text" value="10"/>	<input type="text" value="10"/>	conn./mile main
Average length of customer service line:	<input type="text" value="8"/>	<input type="text" value="0.0"/>	ft (pipe length between curbstop and customer meter or property boundary)
Average operating pressure:	<input type="text" value="1"/>	<input type="text" value="50.0"/>	psi

COST DATA

Total annual cost of operating water system:	<input type="text" value="10"/>	<input type="text" value="\$3,034"/>	\$/Year
Customer retail unit cost (applied to Apparent Losses):	<input type="text" value="10"/>	<input type="text" value="\$13.24"/>	\$/1000 gallons (US)
Variable production cost (applied to Real Losses):	<input type="text" value="10"/>	<input type="text" value="\$3,276.61"/>	\$/Million gallons

PERFORMANCE INDICATORS

Financial Indicators

Non-revenue water as percent by volume of Water Supplied:	<input type="text" value="11.9"/>	%
Non-revenue water as percent by cost of operating system:	<input type="text" value="5.6"/>	%
Annual cost of Apparent Losses:	<input type="text" value="\$79"/>	
Annual cost of Real Losses:	<input type="text" value="\$80"/>	

Operational Efficiency Indicators

Apparent Losses per service connection per day:	<input type="text" value="1.64"/>	gallons/connection/day
Real Losses per service connection per day*:	<input type="text" value="N/A"/>	gallons/connection/day
Real Losses per length of main per day*:	<input type="text" value="67.10"/>	gallons/mile/day
Real Losses per service connection per day per psi pressure:	<input type="text" value=""/>	gallons/connection/day/psi
Unavoidable Annual Real Losses (UARL):	<input type="text" value="Not Valid"/>	

*** UARL cannot be calculated as either average pressure, number of connections or length of mains is too small: SEE UARL DEFINITION ***

From Above, Real Losses = Current Annual Real Losses (CARL): **MG/Yr**

Infrastructure Leakage Index (ILI) (CARL/UARL):

* only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 58 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

- 1: Volume from own sources
- 2: Master meter error adjustment
- 3: Customer metering inaccuracies

For more information, click here to see the Grading Matrix worksheet

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Water Audit Report for: **Valleymare**

Reporting Year: **2012** **1/2012 - 12/2012**

Please enter data in the white cells below. Where available, metered values should be used. If metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: **MILLION GALLONS (US) PER YEAR**

WATER SUPPLIED

<< Enter grading in column 'E'

Volume from own sources:	<input type="text" value="4"/>	<input type="text" value="1.103"/>	Million gallons (US)/yr (MG/Yr)
Master meter error adjustment (enter positive value):	<input type="text" value="1"/>	<input type="text" value="0.000"/>	over-registered MG/Yr
Water imported:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr
Water exported:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr
WATER SUPPLIED:		1.103	MG/Yr

AUTHORIZED CONSUMPTION

Billed metered:	<input type="text" value="8"/>	<input type="text" value="1.072"/>	MG/Yr
Billed unmetered:	<input type="text" value="10"/>	<input type="text" value="0.000"/>	MG/Yr
Unbilled metered:	<input type="text" value="n/a"/>	<input type="text" value="0.000"/>	MG/Yr
Unbilled unmetered:	<input type="text" value="9"/>	<input type="text" value="0.014"/>	MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: MG/Yr

Click here: [?](#)
for help using option buttons below

Pcnt: Value:

Use buttons to select percentage of water supplied OR value

WATER LOSSES (Water Supplied - Authorized Consumption)

MG/Yr

Apparent Losses

Unauthorized consumption: MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	<input type="text" value="4"/>	<input type="text" value="0.022"/>	MG/Yr
Systematic data handling errors:	<input type="text" value="5"/>	<input type="text" value="0.000"/>	MG/Yr

Apparent Losses: MG/Yr

Check input values; APPARENT LOSSES should be less than WATER LOSSES

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: MG/Yr

WATER LOSSES: MG/Yr

Pcnt: Value:

Choose this option to enter a percentage of billed metered consumption. This is NOT a default value

NON-REVENUE WATER

NON-REVENUE WATER: MG/Yr

= Total Water Loss + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	<input type="text" value="2"/>	<input type="text" value="0.9"/>	miles
Number of active AND inactive service connections:	<input type="text" value="8"/>	<input type="text" value="23"/>	
Connection density:	<input type="text" value="26"/>	<input type="text" value="0.0"/>	conn./mile main
Average length of customer service line:	<input type="text" value="8"/>	<input type="text" value="0.0"/>	ft (pipe length between curbstop and customer meter or property boundary)
Average operating pressure:	<input type="text" value="1"/>	<input type="text" value="50.0"/>	psi

COST DATA

Total annual cost of operating water system:	<input type="text" value="10"/>	<input type="text" value="\$4,861"/>	\$/Year
Customer retail unit cost (applied to Apparent Losses):	<input type="text" value="10"/>	<input type="text" value="\$9.34"/>	\$/1000 gallons (US)
Variable production cost (applied to Real Losses):	<input type="text" value="10"/>	<input type="text" value="\$603.13"/>	\$/Million gallons

PERFORMANCE INDICATORS

Financial Indicators

Non-revenue water as percent by volume of Water Supplied:	<input type="text" value="2.8"/>	%
Non-revenue water as percent by cost of operating system:	<input type="text" value="4.8"/>	%
Annual cost of Apparent Losses:	<input type="text" value="\$231"/>	
Annual cost of Real Losses:	<input type="text" value="-5"/>	

Operational Efficiency Indicators

Apparent Losses per service connection per day:	<input type="text" value="2.95"/>	gallons/connection/day
Real Losses per service connection per day*:	<input type="text" value="N/A"/>	gallons/connection/day
Real Losses per length of main per day*:	<input type="text" value="-22.65"/>	gallons/mile/day
Real Losses per service connection per day per psi pressure:	<input type="text" value=""/>	gallons/connection/day/psi
Unavoidable Annual Real Losses (UARL):	<input type="text" value="Not Valid"/>	

*** UARL cannot be calculated as either average pressure, number of connections or length of mains is too small: SEE UARL DEFINITION ***

From Above, Real Losses = Current Annual Real Losses (CARL):

Infrastructure Leakage Index (ILI) (CARL/UARL):

* only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 63 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

- 1: Volume from own sources
- 2: Customer metering inaccuracies
- 3: Unauthorized consumption

For more information, click here to see the Grading Matrix worksheet

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Water Audit Report for: **Windy Hill**

Reporting Year: **2012** 1/2012 - 12/2012

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades.

All volumes to be entered as: **MILLION GALLONS (US) PER YEAR**

WATER SUPPLIED

<< Enter grading in column 'E'

Volume from own sources:	9	4	8.301	Million gallons (US)/yr (MG/Yr)
Master meter error adjustment (enter positive value):	9	1	0.000	over-registered MG/Yr
Water imported:	9	n/a	0.000	MG/Yr
Water exported:	9	n/a	0.000	MG/Yr
WATER SUPPLIED:			8.301	MG/Yr

AUTHORIZED CONSUMPTION

Billed metered:	9	8	7.181	MG/Yr
Billed unmetered:	9	10	0.000	MG/Yr
Unbilled metered:	9	n/a	0.000	MG/Yr
Unbilled unmetered:	9		0.104	MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: 7.285 MG/Yr

Click here: [?](#)
for help using option buttons below

Pcnt: 1.25% Value:

Use buttons to select percentage of water supplied OR value

WATER LOSSES (Water Supplied - Authorized Consumption)

1.016 MG/Yr

Apparent Losses

Unauthorized consumption: 9 0.021 MG/Yr

Default option selected for Unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	9	4	0.147	MG/Yr
Systematic data handling errors:	9	5	0.000	MG/Yr

Apparent Losses: 9 0.167

Pcnt: 0.25% Value:

2.00% Value:

Choose this option to enter a percentage of billed metered consumption. This is NOT a default value

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 9 0.849 MG/Yr

WATER LOSSES: 1.016 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 9 1.120 MG/Yr

= Total Water Loss + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	9	4	1.7	miles
Number of active AND inactive service connections:	9	8	145	
Connection density:			88	conn./mile main
Average length of customer service line:	9	8	0.0	ft (pipe length between curbstop and customer meter or property boundary)
Average operating pressure:	9	1	60.0	psi

COST DATA

Total annual cost of operating water system:	9	10	\$23,385	\$/Year
Customer retail unit cost (applied to Apparent Losses):	9	10	\$8.96	\$/1000 gallons (US)
Variable production cost (applied to Real Losses):	9	10	\$484.20	\$/Million gallons

PERFORMANCE INDICATORS

Financial Indicators

Non-revenue water as percent by volume of Water Supplied:	13.5%
Non-revenue water as percent by cost of operating system:	8.4%
Annual cost of Apparent Losses:	\$1,500
Annual cost of Real Losses:	\$411

Operational Efficiency Indicators

Apparent Losses per service connection per day:	3.16	gallons/connection/day
Real Losses per service connection per day*:	16.04	gallons/connection/day
Real Losses per length of main per day*:	N/A	
Real Losses per service connection per day per psi pressure:	0.27	gallons/connection/day/psi
Unavoidable Annual Real Losses (UARL):	Not Valid	

*** UARL cannot be calculated as either average pressure, number of connections or length of mains is too small: SEE UARL DEFINITION ***

From Above, Real Losses = Current Annual Real Losses (CARL): 0.85

Infrastructure Leakage Index (ILI) [CARL/UARL]:

* only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 64 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

- 1: Volume from own sources
- 2: Customer metering inaccuracies
- 3: Unauthorized consumption

For more information, click here to see the Grading Matrix worksheet

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Water Audit Report for: **Windy Run**

Reporting Year: **2012** **1/2012 - 12/2012**

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: **MILLION GALLONS (US) PER YEAR**

WATER SUPPLIED

<< Enter grading in column 'E'

Volume from own sources:	4	1.534	Million gallons (US)/yr (MG/Yr)
Master meter error adjustment (enter positive value):	1	0.000	over-registered MG/Yr
Water imported:	n/a	0.000	MG/Yr
Water exported:	n/a	0.000	MG/Yr
WATER SUPPLIED:		1.534	MG/Yr

AUTHORIZED CONSUMPTION

Billed metered:	8	1.268	MG/Yr
Billed unmetered:	10	0.000	MG/Yr
Unbilled metered:	n/a	0.000	MG/Yr
Unbilled unmetered:	5	0.019	MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: 1.287 MG/Yr

Click here: [?](#) for help using option buttons below

Pcnt: 1.25% Value:

Use buttons to select percentage of water supplied OR value

WATER LOSSES (Water Supplied - Authorized Consumption)

0.247 MG/Yr

Apparent Losses

Unauthorized consumption: 0.004 MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	4	0.026	MG/Yr
Systematic data handling errors:	5	0.000	MG/Yr

Apparent Losses: 0.030

Pcnt: 0.25% Value:

2.00%

Choose this option to enter a percentage of billed metered consumption. This is NOT a default value

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 0.217 MG/Yr

WATER LOSSES: 0.247 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 0.266 MG/Yr

= Total Water Loss + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	2	1.5	miles
Number of active AND inactive service connections:	8	35	
Connection density:	8	23	conn./mile main
Average length of customer service line:	8	0.0	ft (pipe length between curbstop and customer meter or property boundary)
Average operating pressure:	1	50.0	psi

COST DATA

Total annual cost of operating water system:	10	\$5,662	\$/Year
Customer retail unit cost (applied to Apparent Losses):	10	\$10.14	\$/1000 gallons (US)
Variable production cost (applied to Real Losses):	10	\$436.16	\$/Million gallons

PERFORMANCE INDICATORS

Financial Indicators

Non-revenue water as percent by volume of Water Supplied:	17.3%
Non-revenue water as percent by cost of operating system:	7.2%
Annual cost of Apparent Losses:	\$302
Annual cost of Real Losses:	\$95

Operational Efficiency Indicators

Apparent Losses per service connection per day:	2.33	gallons/connection/day
Real Losses per service connection per day*:	N/A	gallons/connection/day
Real Losses per length of main per day*:	396.21	gallons/mile/day
Real Losses per service connection per day per psi pressure:		gallons/connection/day/psi
Unavoidable Annual Real Losses (UARL):	Not Valid	

*** UARL cannot be calculated as either average pressure, number of connections or length of mains is too small: SEE UARL DEFINITION ***

From Above, Real Losses - Current Annual Real Losses (CARL): 0.22

Infrastructure Leakage Index (ILI) (CARL/UARL):

* only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 63 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

- 1: Volume from own sources
- 2: Customer metering inaccuracies
- 3: Unauthorized consumption

For more information, click here to see the Grading Matrix worksheet

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Water Audit Report for: **Woodbridge**

Reporting Year: **2012** 1/2012 - 12/2012

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: **MILLION GALLONS (US) PER YEAR**

WATER SUPPLIED

<< Enter grading in column 'E'

Volume from own sources:	4	3.839	Million gallons (US)/yr (MG/Yr)
Master meter error adjustment (enter positive value):	1	0.000	over-registered MG/Yr
Water imported:	n/a	0.000	MG/Yr
Water exported:	n/a	0.000	MG/Yr
WATER SUPPLIED:		3.839	MG/Yr

AUTHORIZED CONSUMPTION

Billed metered:	8	4.072	MG/Yr
Billed unmetered:	10	0.000	MG/Yr
Unbilled metered:	n/a	0.000	MG/Yr
Unbilled unmetered:	5	0.048	MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: 4.120 MG/Yr

Check input values: WATER SUPPLIED should be greater than AUTHORIZED CONSUMPTION

WATER LOSSES (Water Supplied - Authorized Consumption)

-0.281 MG/Yr

Apparent Losses

Unauthorized consumption:	5	0.010	MG/Yr
Customer metering inaccuracies:	4	0.083	MG/Yr
Systematic data handling errors:	5	0.000	MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Apparent Losses: 0.093

Check input values: APPARENT LOSSES should be less than WATER LOSSES

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: -0.374 MG/Yr

WATER LOSSES: -0.281 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: -0.233 MG/Yr

= Total Water Loss + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	2	1.5	miles
Number of active AND inactive service connections:	8	67	
Connection density:	8	45	conn./mile main
Average length of customer service line:	8	0.0	ft. (pipe length between curbstop and customer meter or property boundary)
Average operating pressure:	1	45.0	psi

COST DATA

Total annual cost of operating water system:	10	\$16,068	\$/Year
Customer retail unit cost (applied to Apparent Losses):	10	\$8.43	\$/1000 gallons (US)
Variable production cost (applied to Real Losses):	10	\$1,550.62	\$/Million gallons

PERFORMANCE INDICATORS

Financial Indicators

Non-revenue water as percent by volume of Water Supplied:	-6.1%
Non-revenue water as percent by cost of operating system:	1.7%
Annual cost of Apparent Losses:	\$782
Annual cost of Real Losses:	-\$579

Operational Efficiency Indicators

Apparent Losses per service connection per day:	3.79	gallons/connection/day
Real Losses per service connection per day:	-15.27	gallons/connection/day
Real Losses per length of main per day:	N/A	
Real Losses per service connection per day per psi pressure:	-0.34	gallons/connection/day/psi

Unavoidable Annual Real Losses (UARL): Not Valid

*** UARL cannot be calculated as either average pressure, number of connections or length of mains is too small: SEE UARL DEFINITION ***

From Above, Real Losses = Current Annual Real Losses (CARL): -0.37

Infrastructure Leakage Index (ILI) [CARL/UARL]:

* only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 63 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources

2: Customer metering inaccuracies

3: Unauthorized consumption

[For more information, click here to see the Grading Matrix worksheet](#)